



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/627,470 | 07/25/2003 | Jorg Kroker | 5857 | 3226 |
| 7590 | 02/09/2005 | | EXAMINER | |
| David L. Hedden ASHLAND INC. P.O. Box 2219 Columbus, OH 43216 | | | RONESI, VICKEY M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1714 | |

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|---------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/627,470 | KROKER ET AL. |
| | Examiner Vickey Ronesi | Art Unit 1714 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on _____.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-13 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
 5) Claim(s) ____ is/are allowed.
 6) Claim(s) 1-13 is/are rejected.
 7) Claim(s) ____ is/are objected to.
 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: Translation of DE 19727540.

SUPPLEMENTAL OFFICE ACTION

1. This office action is a supplemental to the office action mailed January 12, 2005 which is necessitated by the receipt of the full English-language translation of Kwasniok et al (DE 19727540). New grounds of rejection under 35 U.S.C. 103(a) over Kwasniok et al have been set forth below.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

2. Claims 1-6 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kwasniok et al (DE 19727540) alone or Kwasniok et al in view of Aizpurua et al (*J. Appl. Polym. Sci.*, Vol. 76, 1269-1279).

Kwasniok et al discloses a cold setting binder used in the foundry industry comprising a binder such as those disclosed on the paragraph bridging pages 6 and 7 and 5-30 wt % based on the total weight of binder of methyl, ethyl, and/or propyl esters of oleic acids (page 7, lines 7-8). Note examples 1 and 7 where a foundry mix is prepared by mixing 59.5 parts by weight of a commercially available epoxy resin such as Rutapox 0164, 25.5 parts by weight of trimethylol propane triacrylate, 15 parts by weight of rapeseed oil methyl ester, cumene hydroperoxide, and sand.

Kwasniok et al does not explicitly disclose from what the epoxy resin is derived nor the epoxide equivalent weight of the epoxy resin, nevertheless, Kwasniok et al exemplifies the use of an epoxy resin, i.e., Rutapox 0164.

Aizpurua et al teaches that Rutapox 0164 has is a diglycidyl ether of bisphenol-A and has an epoxy equivalent weight of 188 (page 1270).

Given that Kwasniok et al exemplifies the use of an epoxy resin intrinsically having the presently claimed characteristics, it would have been obvious to one of ordinary skill in the art to utilize a resin with those characteristics.

It is noted that although Kwasniok et al only teaches the use of methyl, ethyl, and propyl groups and does not disclose the presently claimed alkyl groups having 4-8 carbon atoms, it is the examiner's position that it would have been obvious to one of ordinary skill in the art to expect similar beneficial results with compounds having only additional $-\text{CH}_2-$ groups. Case law holds that homologs (compounds differing regularly by the successive addition of the same chemical group, e.g., by $-\text{CH}_2-$ groups) are generally of sufficiently close structural similarity that there is a presumed expectation that such compounds possess similar properties. *In re Wilder*, 563 F.2d 457, 195 USPQ 426 (CCPA 1977).

3. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kwasniok et al (DE 19727540) alone or Kwasniok et al in view of Aizpurua et al (*J. Appl. Poly. Sci.*, Vol. 76, 1269-1279) and further in view of *Hawley's Condensed Chemical Dictionary* ("oleic acid").

The discussion set forth in paragraph 2 above with respect to Kwasniok et al is incorporated here by reference.

Kwasniok et al does not discloses the use of butyl tallate in its foundry binder composition, however, Kwasniok et al discloses the use of an alkyl ester of oleic acid.

Hawley's teaches that oleic acid is a component of tall oil.

Given that the use of an oleic acid alkyl ester is disclosed by Kwasniok et al and given that it is known that oleic acid is a component of tall oil as taught by *Hawley's*, it would have been obvious to one of ordinary skill in the art to utilize an alkyl ester of tall oil which comprises oleic acid and thereby arrive at the presently cited claims.

4. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kwasniok et al (DE 19727540) alone or Kwasniok et al in view of Aizpurua et al (*J. Appl. Poly. Sci.*, Vol. 76, 1269-1279) and further in view of *Hawley's Condensed Chemical Dictionary* ("oleic acid" and "casting").

The discussions set forth in paragraphs 3 and 4 above with respect to Kwasniok et al, Aizpurua et al, and *Hawley's Condensed Chemical Dictionary* ("oleic acid") are incorporated here by reference.

Although Kwasniok et al discloses using its foundry binder composition to form a foundry shape (col. 19, line 42 to col. 20, line 42), it does not disclose a method of using the foundry shape itself to cast metal.

Hawley's teaches that molten metal is formed into bars or products by pouring the liquid metal into open troughs or channels made of foundry sand (sand casting). It would have then been well within the capabilities of one of ordinary skill in the art to cool the metal before separating the cast metal article from the foundry shape.

Given that the composition of Woodson '576 is intended for use in a foundry binder, it would have been obvious to one of ordinary skill in the art to use the foundry shape to cast metal as taught by *Hawley's* and thereby arrive at the presently cited claims.

The objections and rejections below were set forth in the office action mailed January 12, 2005.

Specification

5. The objections to the title and specification are adequately set forth in paragraphs 1 and 2 of the office action mailed January 12, 2005 and are incorporated here by reference.

Claim Objections

6. The objections to claims 2, 5, and 12 are adequately set forth in paragraph 3 of the office action mailed January 12, 2005 and are incorporated here by reference.

Claim Rejections - 35 USC § 112

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

7. Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The rejection is adequately set forth in paragraph 4 of the office action mailed January 12, 2005 and is incorporated here by reference.

8. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection is adequately set forth in paragraph 5 of the office action mailed January 12, 2005 and is incorporated here by reference.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

9. Claims 1-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Woodson et al ‘567 (US 6,604,567).

The rejection is adequately set forth in paragraph 6 of the office action mailed January 12, 2005 and is incorporated here by reference.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

10. Claims 1-6 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woodson ‘576 (US 4,806,576, cited on IDS dated 7/25/2003) in view of Kwasniok et al (DE 19727540).

The rejection is adequately set forth in paragraph 7 of the office action mailed January 12, 2005 and is incorporated here by reference.

11. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woodson ‘576 (US 4,806,576, cited on IDS dated 7/25/2003) in view of Kwasniok et al (DE 19727540) and further in view of *Hawley's Condensed Chemical Dictionary* ("oleic acid").

The rejection is adequately set forth in paragraph 8 of the office action mailed January 12, 2005 and is incorporated here by reference.

12. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woodson ‘576 (US 4,806,576, cited on IDS dated 7/25/2003) in view of Kwasniok et al (DE

19727540) and further in view of *Hawley's Condensed Chemical Dictionary* ("oleic acid" and "casting").

The rejection is adequately set forth in paragraph 9 of the office action mailed January 12, 2005 and is incorporated here by reference.

Double Patenting

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

13. Claims 1-13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,604,567.

The rejection is adequately set forth in paragraph 10 of the office action mailed January 12, 2005 and is incorporated here by reference.

14. Claims 1-13 are directed to an invention not patentably distinct from claims 1-15 of commonly assigned U.S. Patent No. 6,604,567.

The discussion is adequately set forth in paragraph 11 of the office action mailed January 12, 2005 and is incorporated here by reference.

15. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 6,604,567. See the discussion set forth in paragraph 10 above.

The rejection is adequately set forth in paragraph 12 of the office action mailed January 12, 2005 and is incorporated here by reference.

Correspondence

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 4, 2005

vr



Vasu Jagannathan
VASU JAGANNATHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700